

METHOD AND DEVICE FOR ASSAYING MOLECULES
USING RF INTEGRATED PASSIVE COMPONENTS

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ABSTRACT OF THE DISCLOSURE

10 A method and device of detecting a molecule, such as DNA or RNA, is
provided. The device includes a substrate having an array of at least one
biodetection site. The biodetection site is in contact with an electrical
resonator. A biochemical probe is applied to the site and is subsequently
interacted with the target biomolecule at the site. The magnetic properties of
the biodetection site are measured and may be correlated with the presence
and quantity of biomolecules at the site. Methods of using the device to
15 detect the presence and determine the quantity of molecules at the site are
also provided.